APPLIED TROPHOLOGY, VOLUME 12

Applied Trophology, Vol. 12, No. 1 (Third Quarter 1970)

Biochemical Background of Obesity; Potatoes; Aging and Diets; Definition of Nutrition; Why Dieting Is Difficult

Contents in in this issue:

- "The Biochemical Background of Obesity,"
- "Potatoes (One of Our Most Nutritious Foods),"
- "Aging Processes and Sophisticated Diets,"
- "A New Definition of Nutrition,"
- "Why Dieting Is Thought to Be Difficult."

The following is a transcription of the Third Quarter 1970 issue of Dr. Royal Lee's *Applied Trophology* newsletter, originally published by Standard Process Laboratories.

The Biochemical Background of Obesity

Obesity is probably our most underrated national disease. Insofar as the sufferer is concerned, his appearance may be the primary consideration. To his doctor, however, obesity takes on an entirely different aspect since he realizes that [being] overweight is a very real health problem. He should also realize, if he does not, that there is a very real biochemical background to the cause of obesity, a concept of much greater magnitude than the usual "total calorie" idea which he may have been taught to believe.

High Protein Diets?

The biochemical background of obesity begins with the chain reactions which convert food nutrients to different forms in the body. For example, proteins go through the chain reactions by the process of digestion, which converts them into amino acids for absorption. The bodily processes then reconvert the amino acids back to protein for tissue use.

This is what normally happens if the amino acid pattern is complete and well-balanced. Otherwise the protein is utilized as a carbohydrate of energy. The obese person who is on a high protein diet should note this fact and realize that unless it is a "complete protein" the caloric excess may be just as severe as if he were consuming equivalent amounts of carbohydrates. In fact, the end results of incomplete protein diets may be even worse than incomplete carbohydrate, since the end-products of protein metabolism can cause a kidney overload because of the preponderance of wastes on such a diet. A wide variety of protein foods in the diet, composed of either animal or vegetable sources, is your best assurance of obtaining the complete amino acid pattern.

Carbohydrates and Obesity

Natural carbohydrates such as cane sugar, whole wheat, brown rice, and potatoes, for example, contain the vitamins and minerals required for their assimilation. In the metabolic processes such carbohydrates are normally "burned up" as energy. One danger in consuming incomplete carbohydrates—those that have been depleted of essential vitamins and minerals—is that they tend to accumulate in the tissues as difficult-to-combust materials and contribute to obesity. A good example of the complete metabolism of natural carbohydrates is seen in the south Pacific islander who exists on a very high carbohydrate diet. Living on his natural fare, he has no obesity problem.

Fats and Obesity

Fats are listed in nutritional textbooks as the most concentrated source of energy. The fact that they are fat, however, does not necessarily mean that they "make fat" in the body. In fact, there is evidence to show that they have an opposite effect. A recent book titled *Eat Fat and Grow Slim* by Dr. Richard MacKarness (Doubleday & Co.) shows that a high natural fat diet may be effective in weight reduction. This is certainly doubtful in the case of synthetic fats (hydrogenated oils). These are incomplete, lacking phospholipids and vitamins concerned with their metabolism. The Eskimo, living on a high natural fat and protein diet, does not suffer from obesity. His plumpness is the result of a frigid environment, requiring fat for insulation for his body.

Disease of Civilization

To find obesity, we must go to the civilized races where incomplete foods are an integral part of their eating habits. This disease does not generally exist in primitive races eating natural foods. This is typical of other diseases that infest the civilized environment as well. What is the answer?

Virtually the only reliable source for selecting complete food complexes is found in raw foods. Fresh fruits, potatoes, vegetables, meats, eggs, milk, butter and dairy products are all foods that, under present-day circumstances, are as complete as it is possible to obtain.

If the problem of obesity resulting from incomplete foods were attacked on the basis of raw, whole foods, not only might the problem be obliterated, but the condition of our nation's health would be considerable improved as well.

Potatoes (One of Our Most Nutritious Foods)

The Irish peasantry refer to their beloved potatoes as "bog apples." This quaint term is useful to remember because it implies that potatoes, like apples, may be eaten raw and also "help keep the doctor away."

However, while hardly an American meal passes without cooked or baked potatoes, potatoes served as a raw food are rare. From a health point of view, this is unfortunate. Salads, hors d'oeuvres, and between-meal snacks offer ample opportunity to include raw potatoes in the diet. The neutral and bland flavor of raw potato makes their taste agreeable to most people, including children. They are perennially available, and we should encourage their use as a raw food in all seasons of the year.

Potatoes for Reducing

"Eat potatoes instead of bread" is good advice for those who are fighting the battle of the calories. Pound for pound, potatoes furnish about one-third less calories than wheat flour products. This means that we may eat three times as much potatoes as bread on a caloric basis. There are only about 100 calories per medium-sized potato, which is much less than a serving of spaghetti, pie, or cake. In addition, the potato's superior digestibility and food value as a source of protein, vitamins, and minerals make it ideal for reducing calories without sacrifice of many essential food factors.

Digestibility of Potatoes

While the quality of potatoes is greatly modified by the conditions and soil in which they are grown, an analysis generally shows about 75 percent water, 15 percent starch, one or two percent protein, and two to three percent mineral salts.

However, the nutritive value cannot be obtained on the basis of analysis alone. Reports show that 85 percent of calories are digestible, 70 to 80 percent of the protein is absorbed, and 97 percent of the iron is in "available" form (McCance and Widdowson, 1942). Potatoes have very little fat or sugar. They are high in the essential minerals, potassium, phosphorus, and calcium. The richer in protein, the waxier they are; the higher in starch, the more mealiness when cooked.

Irish Potato Famine

The potato famine in Ireland came about because potatoes were allowed to become practically the only staple food. One report states that a barrel of potatoes weighing 280 pounds would last a peasant family of five only one week, indicating an average consumption of eight pounds per person a day. This is particularly interesting in view of the fact that when the potato came into general use, scurvy became less common, except in years of crop failure.

Losses in Preparation

The portion of the potato under the skin contains almost twice the solids that the central portion does, yet the removal of 20 to 25 percent of the total weight when the potato is peeled is not uncommon. In addition, if peeled potatoes are boiled in water, 20 percent of the solid constituents may be dissolved and and lost. (This loss is practically eliminated if potatoes are boiled with the skins intact.)

Cutting the potato damages the cells and causes the liberation of an enzyme (ascorbic acid oxidase) that destroys vitamin C to some extent. We may estimate that 25 percent of the vitamins are lost in cooking, either by heat or leaching. The loss of vitamin C is particularly rapid in heat. Ninety percent of vitamin C may be lost from mashed potatoes in 30 minutes if kept hot. It is evident that at least 50 percent loss of nutrient value is a conservative estimate of the deficit caused by ordinary methods of preparation of this important food. Of course, eating the potato raw bypasses these losses.

Conserving Food Values

Cooking in salt water conserves more vitamin C than cooking in unsalted water. There is a greater loss of solids if potatoes are started in cold water instead of dropping them into boiling water. One tablespoon of vinegar or lemon juice in a quart of water helps to prevent blackening. When extracting potato juice, lemon juice should be added.

Sprouted potatoes are inferior in quality to unsprouted ones. The potato skin is only six to ten cells thick, yet contains almost nine percent of the protein and acts to prevent loss of solid constituents in cooking.

Baked potatoes should be pricked or broken open as soon as removed from the oven to let steam escape. This prevents them from becoming soggy. It is a good idea to insert a stainless-steel skewer through the potato while baking. This conducts heat into the center, and thus less baking time is required.

Quality Differs

The best potatoes come from Maine where the crops are rotated with oats and clover. The clover is ploughed under as soil food. The soil is abundantly supplied with decomposed shale rock. While potatoes can be grown on almost any soil, the mulch or peat soils are often used and, since these soils are comparatively virgin, we have a good chance of obtaining fine potatoes.

Aging Processes and Sophisticated Diets

We get old, not by the effects of time alone, but because our glandular systems are arranged to operate a given period of time and "rundown" like an eight-day clock. This is illustrated by the fact that a pigeon dies of senility in about 10 years, while a parrot—physically similar and supplied with the same food—normally reaches five or more times that age.

"Worry Kills"

Endocrine (glandular) recession begins in man at the age of 25 to 30. This is demonstrated by the fact that a prize fighter is at his physical peak within those time limits. The physical changes after this time, for a period of 20 years or so, are usually not significant. But we may not be looking deep enough. We know that certain occupations tend to shorten the life period—physicians are high on the list—while other occupations contribute to longevity. Life insurance statistics show deep sea fishermen live longest, watchmakers ranking next. About the only thing in common between these two fields is that each offers little occupational cause for worry. Within these limits, however, we are compelled to conclude that the lifespan is determined by the vagaries of evolution, being a hereditary characteristic beyond ordinary influences.

An Additional Problem

Quite another problem from this inherited lifespan expectancy is the stress that can be imposed upon the body by extraneous forces, one of the most important being faulty nutrition.

Dr. Henry C. Sherman of Columbia University found many years ago that diets rich in what he called "protective foods" had a definite influence upon the longevity of his test animals. He attributed the beneficial effect to an ample and generous supply of vitamin A and calcium, although, no doubt, other factors in the protective foods were responsible as well.

HISTORICAL ARCHIVE SEARCH

Search For...

GO!!

Shares

YOUR CART

FEATURED ARCHIVE SUBJECTS

Lee Foundation for Nutritional Research

acid-alkaline balance

digestive health

heart disease

low-carb diet

prenatal nutrition

processed foods and disease

raw foods

soil health and nutrition

RECENT POSTS

Good to Know: Understanding Standard Process Combination Products

22 hours ago

Happy Thanksgiving from SRP!

1 week ago

Dr. Dority on the 33 Royal Principles of Health: #29. Interference with Transmission of Innate Forces

2 weeks ago

Why Phyllis Quinn's Slow Cook Gourmet Is an SRP Fave

3 weeks ago

Dr. Dority on the 33 Royal Principles of Health: #28. The Conductors of Innate Forces

4 weeks ago

Easy Liver Paté for All (with GAPS Stages)!

1 month ago

CONTACT US

+1 (866) 407-9323
+1 (970) 461-4602
5740 Boeing Drive, Loveland, CO, 80538
P.O. Box 270091, Fort Collins, CO, 80527
info@seleneriverpress.com
Guest Blog Post Submission Form

PRODUCT SEARCH

Search for...

GO!

YOUR CART

Good to Know: Understanding Standard Process Combination Products

22 hours ago

Happy Thanksgiving from SRP!

1 week ago

Dr. Dority on the 33 Royal Principles of Health: #29. Interference with Transmission of Innate Forces

2 weeks ago

Protective Foods

How can we incorporate more of the protective foods into our diets? Drink milk and eat dairy products daily, eat more fruits and vegetables, more leafy vegetables, more dried fruits. Eat more raw (uncooked) foods such as cabbage, tomato juice, and raw potatoes. These are inexpensive and available in all seasons of the year. Such foods, consumed regularly, is good assurance that they will be high in "protective food" factors that are so important in support of the diet most conducive to longevity.

A New Definition of Nutrition

There is a real need for an adequate definition of nutrition. The medical dictionary's coverage is insufficient. "The process of assimilating food or a nutrient." This limited distinction does not encompass the vast amount of present knowledge on the subject.

Virchow, the father of pathology, said that disease begins with the cell. Nutrition, man's bulwark against deficiency disease, must, therefore, be defined from the cell level as well. It should include all of the food factors that for any reason influence the integrity of the cells of the body. It should include not only the nutrients needed for normal function and repair, but also those foods, which by means of concentration or depletion, are not in harmony with the body's needs.

The fact is that the further we depart from Nature's ways, the more we need to know about them in order to meet the demands set by an unnatural environment. Let us expand our definition of nutrition to conform with these terms.

Why Dieting Is Thought to Be Difficult

A diet differs from a menu, which is simply a list of foods to eat. Many so-called "diets" are little more than that. The follower is asked to "eat by prescription." This soon becomes monotonous and boring. The person willing to follow such a regime is—as doctors know—the rare exception. Thus, the idea of "dieting" has taken on an unpleasant aspect undeserving of its name.

The Greeks Had a Word for It

The word "diet" comes from the Greek. Its original meaning was a "design for living" or "a way of life." It was meant to be something that was adhered to because it was deemed to be right, not an arbitrary ruling to be enforced by rules and regulations. If dieting is looked upon in that light, a new perspective of its meaning arises. Instead of having its basis in statistical values—so many calories, so much of this and that—the values will be placed upon foods that contribute to health because they fall into the range of nature's original plans.

Basic Research Needed

Weston A. Price, DDS, who traveled to remote regions of the world studying native diets, found a striking similarity of good health wherever the food consisted of the original fare of the land. This applied whether diets were of the high-protein variety, such as eaten by Eskimo races, or natural high carbohydrate diets, as followed by the Polynesians. The important factor was the true wholesomeness of the food itself. It is apparent that such "wholesome" food is a key to answering many of our nutritional problems. Certainly, the Hunzas and other prime health groups are not lacking in such foods. The understanding of this simple fact is the basis for the true meaning of "dieting." Somehow nature did it right in the first place.

The Way to Go

Certainly, one would not like to revert to primitive living to obtain this sole benefit; obviously other means need to be devised. What standards can be set which are both practical and on hand? Can we eat today on a low stress dietary basis? The answer lies not so much in the available food supply—our pantries are full—but rather in how we utilize the food with which we are so plentifully provided. This calls for some serious thinking. Keep these thoughts in mind:

The quality of foods. This first consideration given to any food is its quality. Has excess heat, such as cooking or baking literally cooked the life out of it? Has it been refined by processing methods which retain the "burnable calories" at the expense of the "protective elements" in food? Is it in nature's original form, or nearly so, containing the wholesome "built-in" features which it possessed as it grew?

The quantity of foods. It is unlikely that anyone would grossly overeat of any natural food. This is not true when foods have been tampered with by artificial means. Such foods can have a strong appetite appeal—white sugar, for example—causing the unaware user to vastly overconsume these foods. Many such foods are little more than pure sugars, fats, or starches. Even relatively small amounts can cause stress to the metabolic equilibrium.

Moderation needed. This calls for moderation. But "moderation" has a different meaning for most everyone. Insofar as diet is concerned, we are generally placing the emphasis in the wrong place. To simply be satisfied with a diet that prevents classical deficiency diseases (scurvy, pellagra, rickets, and the like) is not enough. To be truly "well-balanced," a diet must be temperate as well as provide basic nutrients. Science now recognizes the ill-effects of "too much" salt, "too much" saturated fats. Perhaps soon will come the recognition of "too much" incomplete protein, "too much" refined sugar, "too much" purity in a variety of foods—not to mention "too much" vitamins when consumed in excessive amounts, as is easily possible in highly concentrated synthetic forms.

The Brunt of the Blow…

A diet characterized by excesses and imbalances can stress the metabolism. The body needs so much food, but no more, [or it] overloads the digestive system—there is a limit to its capacity. The glandular system, liver and kidneys (important organs of homeostasis) take the brunt of such biological indiscretions. This is an abuse we can ill-afford. Our bodies are not equipped to continuously fight these taxing events. Running uphill is an expense. Eventually stamina and resistance runs out; the piper is waiting to be paid. If we allow the powder keg to be filled with biochemical dynamite, each step narrows the margin of safety. It matters little what finally causes the "explosion." The spark that sets it off need but be small. It is the prior events that determine the force of the disaster.

A Personal Decision

Such "behind the scene" causes seldom appear in the headlines. It is up to the individual to figure out his probable fate beforehand. Someone once said, "To be human is to live in danger." The trouble is in knowing where that danger lies. Exposing this very real possibility to uninitiated persons is a responsibility every nutrition-mined physician faces. While air and water pollution hold the center of the ecological stage, the nutritional disruption of our internal environment is the star player in the drama of life. These thoughts are growing in the public's mind. Conscientious persons everywhere are concerned. Dieting is really not difficult, not if one realizes its true importance as a way of life. These things are in the common domain. The primitive, living in tribal community, acts to protect his health secrets and keep them from knowledge of his enemies. We do the same with military secrets—but "health secrets" should be publicized instead of being repressed.

This entry was posted in Applied Trophology, Volume 12. Bookmark the permalink.

Applied Trophology, Vol. 11, No. 12 (December 1967)

Applied Trophology, Vol. 14, No. 1 (First Quarter 1971)

Leave a Reply

You must be logged in to post a comment.

Connect with:

Secured by OneAll Social Login

Why Phyllis Quinn's Slow Cook Gourmet Is an SRP Fave

3 weeks ago

Search Historical Archives...

SEARCH

FEATURED ARCHIVE SUBJECTS

- Lee Foundation for Nutritional Research
- acid-alkaline balance
- digestive health
- heart disease
- low-carb diet
- prenatal nutrition
- processed foods and disease
- raw foods
- soil health and nutrition

ABOUT SELENE RIVER PRESS

Selene River Press is a publishing company specializing in holistic nutrition education. Our philosophy is rooted in the work of Dr. Royal Lee, who showed that vitamin deficiencies, due to processed foods, are responsible for most degenerative disease. From organic farming to food-based vitamins, from raw milk to fermented foods, Dr. Lee set the course for the field of whole food nutrition.

CONTACT US

Toll Free: +1 (866) 407-9323
Local: +1 (970) 461-4602
PO Box 270091, Fort Collins, CO, 80527
info@seleneriverpress.com
Guest Blog Post Submission Form